



WALK IN DUST TEST CHAMBER

Walk in Dust Test Chamber replicates the effects of natural elements like sand, wind, and dust on products and materials, which can lead to significant economic losses annually. These effects often result in corrosion, fading, deformation, reduced strength, swelling, mold growth, and other damage. Electrical products are particularly at risk of fires caused by short circuits from dust accumulation. Conducting dustproof testing on enclosures is a critical step to ensure the reliability and safety of specific products or materials.

This chamber is ideal for testing outdoor lighting, household appliances, automotive components, and other electronic or electrical devices.

APPLICATIONS

The Torontech Walk-in Dust Test Chamber is engineered to perform Ingress Protection (IP) testing, specifically evaluating a product's resistance to the damaging effects of solid particle and dust ingress. Its primary application is to simulate harsh, dust-laden environments to verify that enclosures for electrical and mechanical products can effectively prevent dust from penetrating and causing short circuits, abrasion, or operational failure. This testing is a critical step in product validation, safety certification, and ensuring long-term reliability.

This essential environmental simulation is vital for ensuring product durability in:

- **Automotive Manufacturing:** To test the integrity of enclosures for critical components such as engine control units (ECUs), sensors, lighting assemblies, and connectors, ensuring they can withstand the dust and grime of real-world driving conditions without failure.
- **Aerospace & Defense:** For validating the ruggedness of avionic systems, military electronics, and field equipment, ensuring they can operate reliably in harsh, desert-like environments where fine, abrasive dust poses a significant threat to mission-critical systems.
- **Outdoor & Industrial Electronics:** To certify the enclosures of products like outdoor lighting, security cameras, and industrial control panels, verifying their ability to prevent dust ingress which is essential for ensuring safety,

performance, and a long operational life in exposed or industrial settings.

- **Consumer & Home Appliances:** For ensuring the long-term reliability and safety of appliances by testing their resistance to household dust accumulation, which can lead to overheating, short circuits, and reduced product lifespan.

TECHNICAL SPECIFICATIONS

Model	ToronSDC-125	ToronSDC-500	ToronSDC-1000	ToronSDC-1500	ToronSDC-2000
Volume	125L	500L	1000L	1500L	2000L
Internal Dimension W*H*D(mm)	500x500x500	800x800x800	1000x1000x1000	1500x1000x1000	2000x1000x1000
External Dimension W*H*D(mm)	950x1350x790	1250x1755x1050	1450x2030x1250	1950x2120x1360	2450x2120x1360
Dustfall form	Free fall dust type □ The dust is blown to 1/5 of the tank top by centrifuge to make it free settling				
	Dust blowing□ Bottom air blast , three grades pressure is adjustable				
Standard configuration	With dust drying device, vibrator, sample holder, observation window (door)				
Safety protection	Overload breaking protection, earthing protection, etc.				



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